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ABSTRACT

In order to provide high quality specialized instruction and to achieve voluntary integration, a magnet program was developed in the Fort Worth (Texas) Independent School District. The program is in its third year of implementation and currently is underway in two high schools, two middle schools, and an elementary school. Program features included use of uniform entry criteria for all races, preparation of students prior to entering a minority neighborhood school, business community involvement through adoption, utilization of results from other districts' definition of performance standards, and consistency in abiding by them. Both number and quality of magnet program students have increased each year. In the 1982-83 school year, students scored 2-3.9 years above district norms, and showed 1.5-2.5 months gain per month of instruction. Black students, whose numbers rise each year, scored lower and showed slightly smaller gains than White students, but scored 3-4.6 years above district Black norms. Overall, ethnic enrollments in the magnet program include 6 percent Asian, 50 percent Black, 9 percent Hispanic, and 35 percent White. Program evaluation findings point toward the effectiveness of the magnet program, both as an environment of enhanced academic achievement and as a means of ethnic integration for the schools involved. (Author/GC)

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FORT WORTH INDEPENDENT SCHOOL DISTRICT

A MODEL FOR A MAGNET PROGRAM WHICH PROMOTES BOTH HIGH ACHIEVEMENT AND VOLUNTARY INTEGRATION

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ABSTRACT

A MODEL FOR A MAGNET PROGRAM WHICH PROMOTES
BOTH HIGH ACHIEVEMENT AND VOLUNTARY INTEGRATION

The magnet program was developed to provide high quality specialized instruction and to promote voluntary integration. The program is in its third year of implementation and is currently implemented in two high schools, two middle schools, and an elementary school.

Numbers and quality of magnet students increase each year. Students scored 2-3.9 years above district norms, and showed 1.5-2.5 months gain per month of instruction. Black students, whose numbers rise each year, scored lower and showed slightly smaller gains than White students, but scored 3-4.6 years above district Black norms. Hispanic participation in the magnet programs has been relatively light. Overall, ethnic enrollments in the magnet program include 6% Asian, 50% Black, 9% Hispanic, and 35% White. Findings point toward the effectiveness of the magnet program both as an environment of enhanced academic achievement and as a means of ethnic integration for the schools involved.

Program features included use of uniform entry criteria for all races, preparation of students prior to entering a minority neighborhood school, business community involvement through adoption, utilization of results from other districts definition of performance standards, and consistency in abiding by them.

MAGNET PROGRAM OVERVIEW

WHAT DOES "MAGNET" MEAN?

"Magnet" is a school which attracts students because a special program is offered that is in demand. If a magnet school is located in a predominantly minority area, then majority students from more affluent areas are attracted to it and voluntary school integration is achieved along with the delivery of quality education to residents and attracted students alike.

WHAT IS A MAGNET PROGRAM IN THE FORT WORTH INDEPENDENT SCHOOL DISTRICT?

The magnet program in the FWISD attracts students to predominantly minority area schools by offering. . .

. . . . extended academic knowledge in specialized areas of study, such as engineering, finance, communications, and foreign languages which will enable students to compete successfully in college or careers.
. . . . individualized attention and counseling for students' academic, vocational, and emotional needs.

Qualified students from all district schools compete for a specified number of magnet positions in a school housing the program on an equal basis, mostly through admission tests. That school then becomes the home school for magnet students. Magnet students take elective courses in classes with non-magnet students and are encouraged to participate in the athletic and extra-curricular events of the host school.

HOW HAS THE MAGNET PROGRAM DEVELOPED SINCE ITS INCEPTION?

The program developed gradually. A year of planning had preceded the first academic year of implementation, 1981-82. During 1981-82, two high school programs were inaugurated for 9th and 10th grade students:
. . . . The High School for Engineering Professions situated at Dunbar High School.
. . . . The High School for Finance Professions, situated at Polytechnic High School.

At the same time, a middle school math, science, and communications program for grades 7 and 8 was implemented at Dunbar Middle School as a pilot program with Dunbar area residents only. It was launched as a full-fledged program in 1982-83 at the new 7th and 8th grade Dunbar Middle School building.

Two new programs were implemented in the academic year 1983-84. They were:
. . . . The College Readiness Academy, situated at William James Middle School for grades 6-8, admitting 6th grade students.
. . . . A Montessori program situated at Daggett Elementary School, admitting students in grades K-5.

In the academic year 1983-84, there are approximately 815 students in the program. Of these. . . .

. . . . 348 are in the two high school programs,

. . . . 362 are in the two middle school programs,

. . . . 111 are in the elementary school program.

Students received considerable individual attention. A full-time coordinator and a counselor were assigned to each secondary school. All staff members were selected from several applicants after considerable deliberation. Communication among magnet school teachers was considered the key to successful curriculum delivery. They participated in monthly full magnet staff meetings and monthly departmental meetings where they exchanged effective methods and recommended what should be taught in previous years to prepare students for their courses. They visited other successful program sites and attended gifted student workshops. The director was chosen for his interpersonal communication skills, credibility, and ability to reach the communities of all ethnic groups involved.

WHAT ARE THE OBJECTIVES OF THE MAGNET PROGRAM?

To fulfill its purposes, the program had to . . .

. . . . Promote desegration; magnet students should be about 50% white;

. . . . Demonstrate high achievement growth; on the average students should perform at least at grade level on the Iowa Test of Basic Skills (ITBS) and/or Tests of Achievement and Proficiency (TAP) composite and show more than a year's gain in a year of instruction;

. . . . Present an instructional program that students would perceive as interesting, challenging, and motivating. Students should have considerable amount of homework, a low dropout rate, high attendance rate, and positive attitudes toward the program. Applicants should considerably exceed the number of students admitted. Parents should be reporting satisfaction with program practices.

ACCOMPLISHMENT OF MAGNET PROGRAM GOALS

WHAT ARE THE GENERAL ACADEMIC FEATURES OF THE MAGNET PROGRAM?

All four secondary magnet schools feature. . . .
. . . . small class sizes, average of 15-20 students;
. . . . seven periods of classes each day;
. . . . an intensive computer science program;
. . . . computer facilities, mini and/or micro-computers;
. . . . foreign language classes;
. . . . a mathematics course in each semester;
. . . . electives from 2-3 specified courses; few or no general electives;
. . . . advanced placement courses in the high school level;
. . . . assignment to specific faculty members for regular counseling sessions;
. . . . opportunities for internships, mentorships, and interactions with the business community;
. . . . free transportation.

The Montessori elementary program emphasizes. . . .
. . . . instruction in grades K-5;
. . . . a love of learning;
. . . . respect for materials, teachers, fellow students;
. . . . self-motivation, self-confidence, self-reliance;
. . . . an atmosphere of creativity, inventiveness, exploration, independence;
. . . . learning by self-discovery through use of special equipment;
. . . . development of grace and courtesy.

WHAT COURSES OF STUDY ARE OFFERED IN THE MAGNET PROGRAM?

The High School for Engineering Professions offers students the opportunity to take curriculum which includes four years of mathematics, engineering, and science, three years of computer science, two years of a foreign language, and an optional senior practicum (See Table 1 in Appendix).

The curriculum includes advanced placement courses in American History, English, Physics, and Calculus. Engineering courses, which include Electronics, Engineering Analysis, and Technical Communications will also enable graduates to obtain advanced placement in college.

In surveys conducted in the first two years of operation, students indicated that they faced an academic challenge unprecedented in their school careers.

The first class of 25, which includes three National Merit semifinalists, will graduate in June 1984.

The High School for Finance Professions is designed for college-bound students with an interest in finance, computer science, and/or law. In addition to four years of computer science, foreign language, and science, students take a wide variety of finance-related courses (see Table 2 in Appendix).

The program is somewhat less structured than the High School for Engineering Professions in order to allow students to pursue different finance-related areas. Students have the opportunity to take advanced placement courses in English, and Calculus. The accounting, business law, and economics, and

computer science courses will also enable students to obtain advanced placement in college. An optional senior finance internship provides high level on-the-job training in courts, law firms, and banks.

The first class of nine students, including one National Merit semifinalist, will graduate in June 1984.

The Middle School of Math, Science, and Communications is an advanced 7th and 8th grade academic program which also offers the students exposure to computer science, photography, darkroom procedures, audio/video techniques and career exploration. Students take accelerated courses in math, science, English, social studies, and have a choice of French or Spanish (see Table 3 in Appendix).

The program has been in great demand. There is a waiting list for vacated spaces both in grades 7 and 8.

The College Readiness Academy is a new program geared for grades 6-8, but admitting only 6th graders in 1983-84. In addition, to an accelerated academic program and computer science courses, it features international studies and foreign languages. Students gain exposure to world trade and economics, knowledge of other cultures, and optional student travel experiences. They are required to study three years of a foreign language (Spanish, French, German or Latin).

The Montessori Magnet Program for grades K-5, uses a method which emphasizes individual differences. Learning takes place through self-discovery led by teachers specially trained in the Montessori Method. An atmosphere of order, respect and love of learning is created in which children are motivated to teach each other. Specially designed Montessori equipment is used through which students learn the fundamentals of mathematics, language arts, social studies, and science as well as analytic and synthetic skills.

Kindergarten Montessori classes are offered at several elementary schools. Students who want to continue in this method then transfer to Daggett Elementary School, which is administered by the magnet program.

HOW ARE STUDENTS ADMITTED TO THE MAGNET PROGRAM?

Each spring, secondary magnet school coordinators visit appropriate district schools which have grades that precede the beginning grade of each magnet school and explain the courses of study to the student body. Interested students then take an admission test at pre-arranged dates.

The admission test for high schools is the Differential Aptitude Test (DAT) which constitutes the primary entrance criterion. Students are selected in descending order of performance until all available spaces in the beginning class of a magnet school are filled.

The DAT subtest scores of students selected are generally above the 60th %ile. The High School for Finance staff places greater emphasis on abstract reasoning, verbal reasoning, language usage, and spelling. The High School for Engineering staff places greater emphasis on abstract reasoning, numerical ability, spatial relationships, and mechanical reasoning.

Iowa Test of Basic Skills (ITBS) scores and teacher recommendations are used in conjunction with the admission test scores when ambiguity arises.

The admission test for entrance to the middle school is the Developmental Cognitive Abilities Test (DCAT). As with high school admissions, students are selected in descending order of performance until all available spaces are filled. ITBS scores and teacher recommendations are used in conjunction in case of ambiguity. Average DCAT scores are at the 86th %ile. Adherence to performance-related standards has been strict, and is not in any way related to student ethnicity.

Students have transferred to the program from almost all district schools and some private schools. In all programs, admission to some students with borderline credentials is granted on a probationary basis.

Criteria for admission to the Daggett Montessori Program are discussed in a subsequent section.

HOW WERE MAGNET PROGRAM DATA EVALUATED?

Year-to-year grade equivalent changes of ITBS (Iowa Test of Basic Skills), grades K-8, and TAP (Tests of Achievement Proficiency), grades 9-12, were examined for each magnet school cohort. Student scores were visually compared to district overall and ethnicity means.

WHAT IS THE ACHIEVEMENT LEVEL OF MAGNET STUDENTS?

For grades 9-11, the average magnet program performance on the Tests of Achievement and Proficiency in the Spring of 1983, was 2.4 to 3.9 years above district performance. Students showed average gains of 1.4 to 2.3 years on the TAP composite score from Spring 1982 to Spring 1983. Students of increasingly higher quality enter each year in both middle and high school magnet programs (see Tables 4-11 in the Appendix). At the same time, the scores of students who were invited to attend, but chose not to, has changed from being higher than the scores of students who actually registered to being approximately the same.

Black students admitted in 1982-83 tended to show pre-program composite scores lower by 3 to 9 months in the middle school level and by 1.0 to 1.2 years in the high school level than the scores of White students admitted to the programs. They made approximately the same gains in the middle school, but gained less than Whites by 2 to 11 months at the high school level.

Minority students, in general, scored much higher than district ethnic means and made much larger gains (see Tables 4, 5 and 11 in the Appendix). The difference between Black magnet students and district means was 6 to 18 months higher than the difference between White magnet students and district means. This finding indicates that the magnet program is particularly effective in educating minority students.

Academic performance results are discussed in detail in subsequent sections.

TO WHAT EXTENT HAS THE MAGNET PROGRAM ACHIEVED INTEGRATION?

In the academic year, 1983-84, the magnet high school population in the three pre-existing programs is approximately 50% Black, 35% White, 8% Hispanic and 6% Oriental with some variation between the programs. The ratio of the high school programs in the 1981-82 academic year was approximately 75% Black and 16% White. Ethnic percentages for Blacks and Whites in the older magnet programs are approaching district ethnic percentages. Still, Hispanics are considerably under-represented.

In the two programs inaugurated in 1983-84, White students clearly constitute the majority. The College Readiness Academy population is 64% White, 17% Black, and 11% Hispanic. The Montessori Program is 82% White with 10% Black and 5% Hispanic participation.

HOW IS THE BUSINESS COMMUNITY HELPING THE MAGNET PROGRAM?

Considerable human and material resources have been vested on the magnet program by businesses belonging to the Adopt-a-School program.

The Middle School for Math, Science, and Communications program was adopted by Texas Electric Service Company (TESCO). A total of 65 volunteers have given their services during working hours, of which 25 were one-to-one science fair advisors, 17 were algebra tutors, and others were mentors and speakers. Professionals spend 1-2 hours a week with the students. TESCO has also lent sophisticated equipment for communications classes and invited the students for a plant field trip.

The High School for Engineering Professions program has been adopted by IBM, a business that contributed approximately 12 tutors in math and science and 8 mentors for special projects. Lecturers have given talks, and computers will be donated to the school in the future.

The High School for Finance magnet program was adopted by Texas American Bank which has sent approximately 29 volunteers to the program. Of those, 6-7 are tutors, 9-10 are mentors and 11 are speakers. Students are invited to the bank offices and are shown operational procedures.

The bank plans to offer a senior course in banking and donate the materials necessary. The chairman of the Texas American Bank Board will conduct a management seminar with 20 magnet and non-magnet students. An estate planning class will be offered to the faculty.

The College Readiness Academy program has been adopted by Southwestern Bell Telephone Company and 4-8 management level tutors in math and reading have donated their time. Activity has been limited due to the recent company split-up.

THE MAGNET SCHOOL PROGRAMS

HIGH SCHOOL FOR ENGINEERING PROFESSIONS

WHAT IS THE LEVEL OF ACADEMIC ACHIEVEMENT AT THE HIGH SCHOOL FOR ENGINEERING PROFESSIONS?

Ninth grade students in 1982-83 gained 2.2 years on the ITBS composite, from 10.2 in Spring 1982 to 12.4 in 1983, thus scoring 3.5 years above the district mean (see Table 5). Study skills and mathematics were areas of particularly large gains. Blacks scored 4.2 years above the district mean for Blacks. White students, however, gained 2.9 years between the Spring of 1982 and 1983 (3.1 years above the district mean for Whites) as compared to a 1.8 year gain of Blacks, and widened by another year an initial one-year-gap between the two groups.

A group of students who were invited in 1982-83, but did not attend the magnet program had pre-program 8th grade scores very similar to the magnet student group and showed approximately the same gains (see Table 5). These students showed larger gains in social studies and smaller gains in science and study skills.

Tenth graders in 1982-83 were a slightly weaker group of students who had scored approximately four months lower on pre-program (8th grade) scores as compared to the next cohort (see Table 6). They showed smaller gains, 1.6 years on the ITBS composite. Social studies was an area of particularly large gains, 2.2 years. Students of the same grade who had been invited but did not attend had higher pre-program (8th grade) scores. These students, however, subsequently showed very small gains in reading and study skills and a 7 month gain in science.

Eleventh graders in 1982-83 were an even weaker group (see Table 7) with high minority participation and showed gains of 1.3 years from 1982 to 1983, on the ITBS composite. Students who had been invited at the same time however, and who had 10th grade scores 8 months higher than magnet students, showed even smaller gains, possibly as a reflection of the courses that they were (or were not) taking. This cohort did not take the TAP in the 9th grade, so no preprogram scores were available.

Students admitted to the ninth grade in 1983-84, had an 8th grade ITBS composite score of 11.0, 2.7 years above the district mean (see Table 8). Black students' scores were one year lower than White students' scores. The seven Oriental students admitted had a ITBS composite of 9.6, 1.7 months lower than White students' scores. The two Hispanic students had ITBS composite scores of 9.1 years.

Pre-program scores of 9th grade students admitted each of the past three years have risen at least by four months from 9.8 in 1981-82 to 10.2 in 1982-83 to 11.0 in 1983-84.

WHAT IS THE ETHNIC COMPOSITION OF THE HIGH SCHOOL FOR ENGINEERING PROFESSIONS?

In the current academic year, 1983-84, the program consists of 58% Black students, 29% White students, 6% Hispanic, and 6% Oriental students.

In the three years of operation, the percentage of White participants has risen from 15% to 29%, while the percentage of Blacks had declined from 71% to 58%. Equal percentages of Black and White students were admitted in 1983-84.

Hispanic participation has been low, possibly because of the distance between Dunbar High School and predominantly Hispanic neighborhoods. In the academic year 1983-84, only two new Hispanics were admitted.

FINDINGS REGARDING THE HIGH SCHOOL FOR ENGINEERING PROFESSIONS

In general, analyses show that in The High School for Engineering Professions. . .

. . . . scores of newly admitted students are 4 months higher each year;
. . . . each cohort showes progressively higher gains in the program;
. . . . 1982-83 9th grade Blacks scored 4.2 years above Black district mean; Whites scored 3.1 years higher than White district mean;
. . . . At the same time, Blacks scored lower and made smaller gains from 1982 to 1983 than Whites;
. . . . In a period of three years, the percentage of White students has increased from 15% to 29%;
. . . . Students who were invited to the program in 1982-83, but did not attend had similar pre-program scores to students who registered and showed slightly slower 1982 to 1983 gains;
. . . . Students invited to the program in 1981-82 had higher pre-program scores than students who registered, but subsequently showed smaller gains. This difference may be due to curriculum which forces magnet students to take more courses.

HIGH SCHOOL FOR FINANCE PROFESSIONS

WHAT IS THE LEVEL OF ACADEMIC ACHIEVEMENT AT THE HIGH SCHOOL FOR FINANCE PROFESSIONS?

Ninth grade students in 1982-83 gained an average of 2.6 years on the ITBS composite, from 10.1 in Spring 1982 to 12.7 in Spring 1983, thus scoring 3.6 years above the district mean (see Table 4). Blacks scored 4.6 years above the district mean for Blacks and Whites scored 2.8 years above the White district mean. Black and White student gains were very similar, 2.6 vs. 2.8 years. Whites showed particularly large gains in reading and math. Blacks showed larger gains in social studies.

The students who had been invited, but did not attend showed similar pre-program (8th grade scores), but made smaller gains, 2.0 years. Larger gains were shown by magnet students in reading and language (written expression). The eight Hispanics in the program showed the smallest TAP composite gains of 2.3 years. Tenth graders in 1982-83 and 11th graders of the same year, were weaker groups of students and showed smaller TAP composite gains than the subse- quent cohort (see Tables 6 and 7), 1.4 and 1.8 years respectively. Students who had been invited, but did not attend, scored considerably higher before the program, but made much smaller gains.

Students admitted to the ninth grade in 1983-84 (see Table 9) had a composite ITBS score of 10.6, 2.3 years above the district mean. Black students' scores were 1.2 years lower than White students' scores and 2.7 years above the district mean for Blacks (see Table 9). There is considerable discrepancy between scores of incoming Black and White students. The 10 Hispanic students had the lowest preprogram ITBS scores, 9.5 years.

Pre-program scores of admitted 9th grade students rose from 9.3 in 1981-82 to 10.1 in 1982-83 to 10.6 in 1983-84.

WHAT IS THE ETHNIC COMPOSITION OF THE HIGH SCHOOL FOR FINANCE?

In the current academic year, 1983-84, the program consists of 42% White students, 44% Black students, 12% Hispanic and 2% Oriental students. In the three years of operation, the percentage of White participants has risen from 17% in 1981-82 to 42% in 1983-84 and the percentage of Blacks has declined from 77% to 44%.

Approximately equal percentages of Black and White students were admitted in 1983-84 along with eleven Hispanic students, who constituted 19% of the new ninth grade.

FINDINGS REGARDING THE HIGH SCHOOL FOR FINANCE PROFESSIONS

In general, analyses show that in the High School for Finance Professions:

- . . . . pre-program scores of admitted students rise each year;
- . . . . each cohort shows progressively higher gains in the program;
- . . . . Blacks have scored lower than Whites, but showed only slightly smaller gains;
- . . . . the difference between Black scores and the mean of district Blacks was higher than the difference between White students and the mean of district Whites;
- . . . . students who were invited to the program for 1982-83, but did not attend had similar pre-program scores and showed slightly lower gains;
- . . . . students invited to the program for 1981-82 had higher pre-program scores, but showed much smaller gains in 1982-83;
- . . . . this difference may be due to curriculum which forces magnet students to take more courses.

WHAT IS THE LEVEL OF ACHIEVEMENT IN THE DUNBAR MIDDLE SCHOOL MAGNET PROGRAM?

The average middle school magnet student performance in 1982-83 was two to three years above the district performance. Students gained approximately 1.5 months per month of instruction (see Table 1). Gains are highest in social studies.

Minority students scored three years higher than district ethnic means. They gained more than majority students in language and White students who, in turn, showed greater gains in study skills. Black students 1982-83 pre-program composite scores were two months below those of Whites, and a year later they were three months behind. Black students gained one month less than White students and the ethnicity gap did not widen appreciably. Black students in the 8th grade were 1.3 years behind White students, but White students gained only one month more than Black students.

A group of 15 students who were invited to grade 7 in 1982-83, but did not attend had 8th grade scored higher, by three months than students who enrolled in the program. Smaller gains were made by the invited students group (1.5 vs. 1.2 years), particularly in social studies, study skills, language and mathematics.

Students in the initial pilot program, some of whom were 8th graders in 1982-83, continued to report above average gains and grade equivalent scores, both in comparison to the district and to district Black students. The pilot students scored, however, lower than subsequently admitted students. Language was an area of particularly high scores and gains for this group.

There is considerable competition for entrance to the program. Students admitted to the 7th grade in 1983-84 had an average ITBS composite of 8.7, approximately two years above grade level. Among them, the six Hispanics were the highest-scoring group, but Black students' scores were six months lower than those of Whites. The latter is also true of the 16 8th grade students who were admitted to fill vacancies, but Hispanics had the lowest pre-program scores. DCAT scores of Blacks were lower by six percentile points (see Table 11).

Counselors have expressed a concern that academic demands at the middle school level may cause the students to look for an easier alternative. Since there are insufficient data to show a trend, further study should be undertaken in order to establish the existence or magnitude of this problem.

WHAT IS THE ETHNIC COMPOSITION OF THE DUNBAR MIDDLE SCHOOL MAGNET PROGRAM?

After the 1981-82 pilot year during which all participants were Black, the percentage of White students has been 52-56% and the percentage of Black students had been 37-38%. Seven Hispanics transferred to the program in 1983-84 whereas, only two had attended in 1982-83. The proportion of Orientals has remained constant at 5%.

Program students have shown considerable mobility. A number of students left the program at the end of the 7th grade in 1982-83, but the vacated positions have been in high demand with the result that 16 new students were admitted to the 8th grade in 1983-84.

CONCLUSIONS

In general, analyses show that in the Magnet School of Math, Science and Communications. . .

. . . . middle school magnet students score 2-3 years above district norms;
. . . . these students show average gains of 1.5 month per month of instruction;
. . . . Black students gained 1.4 years; Whites gained 1.5 years;
. . . . approximately half of the 1982-83 middle school graduates went to a magnet high school program.

THE COLLEGE READINESS ACADEMY

WHAT IS THE ACADEMIC LEVEL OF COLLEGE READINESS ACADEMY STUDENTS PRIOR TO THEIR ADMISSION?

As in Dunbar Middle School, the students admitted were, on the average, approximately two years above grade level on the ITBS (Iowa Test of Basic Skills) composite. The four ethnic groups are within 4 months of each other on the ITBS composite, and Blacks DCAT scores were 6 percentile points lower than White DCAT scores. The highest scoring ethnic group is the 12 students classified as Oriental (see Table 12).

WHAT IS THE ETHNIC COMPOSITION OF THE COLLEGE READINESS ACADEMY?

White students make up the majority (64%) of this program, while Black students make up 17%, Hispanic students make up 11%, and Orientals make up 8% of the population.

FINDINGS REGARDING THE COLLEGE READINESS ACADEMY

In general, analyses show that in the College Readiness Academy. . .

. . . . DCAT scores are comparable to Dunbar Middle scores;

. . . . students are approximately two years above grade level;

. . . . White students constitute the majority of the participants.

THE DAGGETT MONTESSORI PROGRAM

WHAT CRITERIA WERE USED FOR STUDENT SELECTION TO THE MONTESSORI PROGRAM?

Preference was given in descending order to:

a) students with previous Montessori experience

b) neighborhood children

c) siblings of students

d) any child

Preference to Montessori students is given because the program is sequential in nature.

WHAT IS THE ACADEMIC LEVEL OF DAGGETT MONTESSORI STUDENTS PRIOR TO THEIR ADMISSION?

Students in grades 1, 2, and 4 of this program are approximately two years above grade level (see Table 13). Grades 3 and 5 are 1.6 and 1.3 years above grade level respectively. No scores were available on Kindergarten students.

WHAT IS THE ETHNIC COMPOSITION OF THE DAGGETT MONTESSORI PROGRAM?

The White students make up 82% of the program population. Blacks constitute 10% of the population and Hispanics 5% of the population.

FINDINGS REGARDING THE MONTESSORI PROGRAM

In general, analyses show that in the Elementary Montessori Program. . .

. . . . the program is heavily White (82%)

. . . . students perform approximately two years above grade level.

MAGNET STUDENT AND PARENT SURVEY RESULTS

WHAT WERE THE FINDINGS OF MAGNET STUDENTS SURVEYS?

A student survey was conducted in the first and second year of program implementation (see Appendix, Table 14) in which opinions regarding program quality, school environment, teacher attitudes, and homework were asked.

In both years, general student opinions were quite positive, and the program was seen as very challenging. Few racial tensions were reported, and the large majority of students reported feeling relatively comfortable with the non-magnet students. Few objections were raised to the busing distance. Many close friendships were made among magnet students. Teachers were rated as competent and challenging.

The large amount of homework and high teacher expectations seemed to put pressure on many students, particularly minority students. Lack of leisure time was seen as a problem, although only 2-3 students indicated that they planned to return to a regular program because of homework.

WHAT WERE THE FINDINGS OF THE MAGNET PARENT SURVEY?

A parent survey was conducted in the spring of the second year of implementation. The general attitude of the parents reflected the positive attitude of the students. Parents were of the opinion that the amount of homework was appropriate rather than excessive and showed concern over long bus rides. Parents mostly felt that their children were going to school in a safe environment.

CONCLUSIONS

Survey findings showed that. . . .

. . . . student and parent attitudes toward the program were quite positive;
. . . . the program is seen as academically challenging;
. . . . homework is seen as excessive by students and as adequate by parents;
. . . . very few racial incidents were reported by parents or students;
. . . . time spent in bus seemed to be an important program drawback to parents but less so to students;
. . . . the magnet schools were generally perceived as a safe learning environment.

MAGNET PROGRAM PLANNING

CURRENT PLANS

The 1983 Amendments to the court desegregation order require the establishment of a magnet program when a secondary school has less than 20% Anglo students enrolled. Magnet program planning for the upcoming years takes into consideration schools which are near the 20% criterion.

During the 1984-85 academic year, five new magnet programs will be initiated. These are. . .

. . . . **The High School for Medical Professions** which will open its doors to 9th and 10th grade students using a curriculum that has proven very successful, for the first two years, in Houston.

. . . . **The International Baccalaureate Programs** which will offer an internationally developed and recognized curriculum and which will culminate in school-leaving examinations at the end of the 12th grade. Ninth and 10th grade students will be admitted in the initial year of the program.

. . . . **Two Middle School Programs** which will offer 6th grade students an academic program of math, science, and an elective which may be horticulture or aviation science.

. . . . **Elementary School Level Spanish Immersion program** which will expand a pilot 2nd grade Spanish language immersion program to the 3rd grade. stage.

. . . . **An Arts Magnet Program.**

An effort will be made in the future to structure programs in such a way that students may be able to progress from an elementary to middle to high school magnet within a defined set of schools.

WHAT ARE THE GENERAL CONCLUSIONS REGARDING THE FORT WORTH INDEPENDENT SCHOOL DISTRICT MAGNET PROGRAM?

In general, analyses show that. . .

. . . . numbers and quality of participants increase each year;
. . . . the number of minority students has risen each year;
. . . . ethnic percentages in pre-existing magnet programs approximate district percentages though Hispanic participation is low;
. . . . new programs have a majority of White participants;
. . . . magnet student performance and year-to-year gains on standardized achievement tests are considerably higher than district performance and gains;
. . . . minority magnet students outperform their district ethnic group more than White students outperform their counterparts in scores and year-to-year gains;
. . . . class sizes range from 15 to 20 students.
. . . . the program is seen as academically challenging by both parents and students;
. . . . few racial incidents have been reported by parents or students;
. . . . the magnet schools were generally perceived as a safe learning environment;
. . . . parents are more concerned about busing time than students are.

Table 1

HIGH SCHOOL FOR ENGINEERING PROFESSIONS
AT DUNBAR HIGH SCHOOL

A Typical Student Curriculum

First Semester (Fall)	Second Semester (Spring)
9th Grade	
Algebra 1	Algebra 2
Biology 1	Biology 2
English 1	English 2
Engineering Drawing 1	Engineering Lab 1
Typing 1	Computer Science 1
P.E.	Health
Foreign Language	Foreign Language
10th Grade	
Algebra 3	Algebra 4
Chemistry 1	Geometry 1
World History 1	Chemistry 2
English 3	World History 2
Creative Design 1	English 4
P.E.	Computer Science 2
Foreign Language	Foreign Language
11th Grade	
Geometry 2	Elementary Analysis 1
Trigonometry 1	Physics 2 or Anatomy & Physiology 2
Physics 1 or Anatomy & Physiology 1	A.P. American History 2 or American History 2
A.P. American History 1 or American History 11	English 6
English 5	Engineering Lab 2
Electronics	Computer Sicence 4
Computer Science 3	P.E.
12th Grade	
A.P. Calculus 1	A.P. Calculus 2
Government 1	Technical Communications
A.P. English 7 or English 7	A.P. English 8 or English 8
computer Science 5	Computer Science 6
Engineering Analysis 1	Engineering Analysis 2
A.P. Physics 1 or Medical Practicum	A.P. Physics 2 or Medical Practicum
Economics	Elective

Table 2

HIGH SCHOOL FOR FINANCE PROFESSIONS
AT POLYTECHNIC HIGH SCHOOL

A Typical Student Curriculum

First Semester (Fall)	Second Semester (Spring)
9th Grade	
English 1	English 2
Algebra 1 or	Algebra 2 or
Geometry 1	Geometry 2
General Physical Science 1 or	General Physical Science 2 or
Biology 1	Biology 2
Health 1	Physical Education 1
Typing 1	*Computer Science 1
*Introduction to Finance 1	*Introduction to Finance 2
Elective: (Recommended:	Elective: (Recommended:
Studies 1 or	Studies 2 or
Foreign Language or	Foreign Language or
*Computer Science 1)	*Computer Science 2)
10th Grade	
English 3	English 4
Geometry 1 or	Geometry 2 or
Algebra 3	Algebra 4
Biology 1 or	Biology 2 or
Chemistry 1	Chemistry 2
World History 1	World History 2
*Financial	*Financial
Accounting 1-2	Accounting 2-3
*Computer Science 2	Physical Education 2
Elective: (Recommended:	Elective: (Recommended:
*Business Law 1 or	*Business Law 2 or
Foreign Language	Foreign Language
11th Grade	
English 5	English 6
American History 1	American History 2
Algebra 3 or	Algebra 4 or
Trigonometry 1	Elementary Analysis 1
Physical Education 3	Government 1
*Computer Science 3	*Statistics 1
*Economics 1	*Economics 2
Elective: (Recommended:	Elective: (Recommended:
*Accounting 4 or Law 3)	*Marketing or
	*Business Communications)
12th Grade	
English 7 or	English 8 or
Advanced Placement English	Advanced Placement English
Trigonometry 1 or	Elementary Analysis 1 or
Advanced Placement Calculus 1	Advanced Placement Calculus 2
*Finance Pre-Intern Lab	*Finance Pre-Intern Lab
(Advanced Computer Science or	(Advanced Computer Science or
Advanced Accounting or Advanced Law)	Advanced Accounting or
*Finance Internship	Advanced Law)
(On-the-job training)	*Finance Intership
	(On-the-job training)

*Special Magnet Courses

Table 3

MIDDLE SCHOOL OF MATH, SCIENCE AND COMMUNICATION
AT DUNBAR MIDDLE SCHOOL

A Typical Student Curriculum

First Semester (Fall)	Second Semester (Spring)
7th Grade	
Math/Pre-Algebra	Math/Pre-Algebra
Science (Earth/Life)	Science (Earth/Life)
English	English
Social Studies	Social Studies
P.E.	P.E.
*Communication	*Computer Sicence
Latin	Latin
8th Grade	
Math/Algebra 1	Math/Algebra 2
General Physical Science 1	General Physical Science 2
English	English
Social Studies	Social Studies
*Computer Science	*Studio Production
P.E.	P.E.
*Language	*Language

*Students will take one semester of Computer Science and one semester of Communications.

*8th Grade students have a choice of French or Spanish.

Table 4

Magnet Student Mean Composite
Grade Equivalent Scores vs. District
Ethnic Mean Scores

	Black			Anglo			Total		
	Group	District	Diff.	Group	District	Diff.	Group	District	Diff.
William James									
Gr. 6 1983-84	7.7	5.2	2.5	8.0	6.5	1.5	7.9	5.8	2.1
Dunbar Middle									
Gr. 7 1983-84	8.3	5.9	2.4	8.9	7.3	2.6	8.7	6.5	2.2
Gr. 8 1983-84	9.9	6.7	2.2	10.2	7.5	2.7	10.1	7.5	2.6
Dunbar High									
Gr. 9 1983-84	10.3	7.3	3.0	11.3	9.3	2.0	10.6	8.3	2.3
Poly High									
Gr. 9 1983-84	10.0	7.3	2.7	11.2	9.3	1.9	10.4	8.3	2.1
Dunbar High									
Gr. 10 1983-84	11.6	7.4	4.2	13.7	10.6	3.1	12.4	8.9	3.5
Poly High									
Gr. 10 1983-84	12.0	7.4	4.6	13.4	10.6	2.8	12.7	8.9	3.8
Dunbar High									
Gr. 11 1983-84	12.8	8.2	4.6	15.2	12.2	3.0	13.3	10.0	3.3
Poly High									
Gr. 11 1983-84	11.9	8.2	3.7	15.2	12.2	3.0	12.6	10.0	2.6
Dunbar High									
Gr. 12 1983-84	13.6	8.5	5.1	17.2	12.6	4.6	14.3	10.7	3.6
Poly High									
Gr. 12 1983-84	13.4	8.5	4.9	18.0	12.6	5.4	14.6	10.7	3.9

Table 5

ITBS/TAP
Scores of 1982-83 9th Grade Students in Grade Equivalents*
(10th Grade in 1983-84)

	High School for Engineering Professions				High School for Finance Professions				Students Invited
	Hispanic	Black	Anglo	Total	Hispanic	Black	Anglo	Total	Total
Reading '82	11.2	9.6	10.7	10.0	9.7	9.9	10.7	10.3	10.2
Reading '83	13.1	11.0	13.4	11.8	12.1	11.7	13.9	12.9	12.1
Gain 82-83	1.9	1.4	2.7	1.8	2.4	1.8	3.1	2.6	2.0
Ethnic Mean83	7.6	7.1	10.6	8.7	7.6	7.1	10.6	8.7	8.7
Language '82	11.3	10.6	11.1	10.8	10.0	10.8	11.1	10.8	10.6
Language '83	14.0	12.4	14.0	13.0	11.8	13.3	13.3	13.1	12.5
Gain 82-83	2.7	1.8	2.8	2.2	1.8	2.5	2.3	2.3	1.9
Ethnic Mean83	8.0	7.7	10.7	9.1	8.0	7.7	10.7	9.1	9.1
Study '82	11.3	9.8	10.8	10.2	9.9	9.8	10.7	10.3	10.3
Study '83	14.2	11.9	14.0	12.7	11.9	10.4	13.5	12.3	12.3
Gain 82-83	2.9	2.1	3.2	2.5	2.0	2.7	2.8	2.0	2.0
Ethnic Mean83	8.3	7.6	11.1	9.3	8.3	7.6	11.1	9.3	9.3
Math '82	10.3	9.6	10.5	9.9	9.1	9.8	10.2	9.7	9.8
Math '83	17.6	12.0	14.3	13.0	11.2	11.7	14.1	12.9	12.9
Gain 82-83	7.2	2.4	3.8	2.9	2.1	1.9	3.8	3.2	3.1
Ethnic Mean83	8.1	7.5	10.7	9.0	8.1	7.5	10.7	9.0	9.0
Composite'82	11.1	9.8	10.8	10.2	9.6	9.4	10.6	10.1	10.2
Composite'83	14.3	11.6	13.7	12.4	11.8	12.0	13.4	12.7	12.2
Gain 82-83	3.2	1.8	2.9	2.2	2.3	2.6	2.8	2.6	2.0
Ethnic Mean83	7.9	7.4	10.6	8.9	7.9	7.4	10.6	8.9	8.9
Soc.Stud.'82	11.5	9.1	11.3	9.9	10.4	9.4	10.9	10.3	9.6
Soc.Stud.'83	13.0	10.7	13.0	11.6	12.2	12.0	12.9	12.5	11.7
Gain 82-83	1.5	1.7	1.7	1.7	1.8	2.6	2.0	2.2	2.1
Ethnic Mean83	7.7	7.3	10.2	8.6	7.7	7.3	10.2	8.6	8.6
Science '82	11.5	9.2	11.6	10.1	9.9	9.3	11.1	10.3	10.3
Science '83	13.9	11.2	13.7	12.1	11.6	11.1	12.9	12.1	11.9
Gain 82-83	2.4	2.0	2.1	2.0	1.7	1.8	1.8	1.8	1.6
Ethnic Mean83	7.5	7.0	10.3	8.5	7.5	7.0	10.3	8.5	8.5
No. of students	3	32	16	51	8	19	30	57	65

* only students with scores for two years reported.

Table 6
ITBS/TAP Three Year Scores of
1982-83 10th Grade Students in Grade Equivalents
(11th Grade in 1983-84)

	Grade 11			Grade 11
	Engineering	Finance	District Means	Invited Students*
Reading				
1981 (8th)	9.7	9.3	-	9.9
1982 (9th)	11.5	11.0	8.9	13.3
1983 (10th)	13.4	13.1	9.9	13.6
Gains 82-83	1.9	1.9		.3
Language				
1981 (8th)	10.4	10.2	-	10.9
1982 (9th)	12.0	12.0	9.1	12.7
1983 (10th)	13.7	13.7	10.1	14.2
Gains 82-83	1.7	1.7		1.5
Study Skills				
1981 (8th)	9.8	9.1	-	10.1
1982 (9th)	12.4	11.0	9.3	13.4
1983 (10th)	13.3	11.9	10.2	13.4
Gains 82-83	.9	.9		.0
Math				
1981 (8th)	9.4	9.0	-	9.9
1982 (9th)	11.7	10.9	9.0	12.5
1983 (10th)	13.6	13.0	9.9	14.5
Gains 82-83	1.9	2.1		2.0
Composite				
1981 (8th)	9.8	9.3	-	10.2
1982 (9th)	11.7	11.2	9.0	12.8
1983 (10th)	13.3	12.6	10.2	13.7
Gains 82-83	1.6	1.4	1.2	.9
Social Studies				
1981 (8th)	9.5	8.6	-	9.5
1982 (9th)	11.2	10.8	8.8	12.2
1983 (10th)	13.0	12.3	9.9	13.5
Gains 82-83	2.2	1.5		2.3
Science				
1981 (8th)	10.4	8.8	-	9.5
1982 (9th)	12.0	10.4	8.6	12.5
1983 (10th)	13.1	11.2	9.6	13.2
Gains 82-83	1.1	.8		.7
Total number	30	29		13

*Applied, were invited, but did not register
Only students still in attendance in 1982-83
are included in this table.

Table 7

TAP Scores of 1982-83 Students in Grade Equivalents
(12th Grade in 1983-84)

	Engineering	Finance	District 1983 Means	Students invited
Reading '82(Gr.10)	12.7	12.5	9.8	13.4
Reading '83(Gr.11)	14.4	14.2	10.9	13.9
Gain 82-83	1.7	1.7	1.1	.5
Language '82(Gr.10)	12.8	13.5	9.7	14.0
Language '83(Gr.11)	13.5	15.4	10.5	14.4
Gain 82-83	.7	1.9	.8	.4
Study '82(Gr.10)	13.5	13.2	10.0	14.6
Study '83(Gr.11)	15.0	15.8	11.2	15.0
Gain 82-83	1.5	2.6	1.2	.4
Math '82(Gr.10)	13.5	13.4	9.7	14.3
Math '83(Gr.11)	15.6	15.1	10.4	15.0
Gain 82-83	1.9	1.7	.7	.7
Composite '82(Gr.10)	13.0	12.5	9.8	13.8
Composite '83(Gr.11)	14.3	14.6	10.7	14.2
Gain 82-83	1.3	2.1	.9	.4
Soc. Stud. '82(Gr.10)	12.7	11.5	9.8	13.0
Soc. Stud. '83(Gr.11)	14.0	13.6	10.7	13.4
Gain 82-83	1.3	1.6	.9	.4
Science '82(Gr.10)	12.5	11.9	9.4	12.9
Science '83(Gr.11)	13.4	13.5	10.2	12.9
Gain 82-83	.9	1.6	.8	.0
Total number	32	12		19

Table 8

High School for Engineering Professions
1983 8th Grade ITBS Scores for 1983-84 9th Grade Students
in Grade Equivalents

	Hispanic	Black	White	Oriental	Total	District Total
Reading '83	10.0	9.9	11.5	9.5	10.6	8.1
Language '83	8.6	11.1	11.4	10.0	11.1	8.6
Study Skills '83	8.9	10.3	11.4	9.8	10.7	8.2
Mathematics '83	8.7	10.1	10.9	10.0	10.4	8.3
Composite '83	9.1	10.3	11.3	9.6	11.0	8.3
Social Studies'83	9.1	9.6	11.5	9.5	10.4	7.8
Science '83	10.0	10.4	12.5	11.0	11.4	8.1
Ethnic Mean '83						
No. of Students	2	29	31	7	69	

Table 9

High School for Finance Professions
1983 8th Grade ITBS Scores for 1983-84 9th Grade Students
in Grade Equivalents

	Hispanic	Black	White	Total	District Total
Reading '83	9.4	10.0	11.4	10.5	8.1
Language '83	10.9	10.9	11.8	11.1	8.6
Study Skills '83	9.7	10.0	11.1	10.4	3.2
Mathematics '83	9.9	9.7	10.7	10.1	8.3
Composite '83	9.5	10.0	11.2	10.6	8.3
Social Studies83	9.7	9.3	11.1	10.2	7.8
Science '83	9.5	9.7	11.4	10.4	8.1
Ethnic Mean '83					
No. of Students	10	19	22	51	

Table 10

1982-83 ITBS Middle School Scores for
Math, Science, and Communications Students
in Grade Equivalents

	Grade 7 (Grade 8 1983-84)				Grade 8 (Grade 9 1983-84)			
	Hispanic	Black	Anglo	Total	Invited to Grade 7 Total	Black	Anglo	Total
Vocabulary '82	8.6	8.0	8.5	8.3	8.1	8.8	10.0	9.0
Vocabulary '83	10.0	9.3	9.8	9.6	9.7	9.8	11.6	10.5
Gain 82-83	1.6	1.3	1.3	1.3	1.6	1.0	1.6	1.5
Ethnic Mean	6.4	6.4	7.6	7.2	8.1	7.1	9.2	8.1
Reading '82	8.5	8.6	8.7	8.6	9.0	8.9	10.4	9.3
Reading '83	10.2	9.7	10.2	10.0	10.3	10.3	11.9	10.9
Gain 82-83	1.7	1.1	1.5	1.4	1.3	1.4	1.5	1.6
Ethnic Mean	6.7	6.5	7.9	7.3	8.1	7.1	9.2	8.1
Language '82	9.2	9.0	9.3	9.2	9.4	9.6	10.9	9.9
Language '83	11.0	10.9	10.8	10.9	10.6	11.3	12.2	11.6
Gain 82-83	1.8	1.9	1.5	1.6	1.2	1.7	1.3	1.7
Ethnic Mean	7.1	6.9	7.5	7.7	8.6	7.1	9.3	8.6
Study Skills '82	8.4	8.5	8.8	8.6	9.4	9.0	10.0	9.2
Study Skills '83	9.9	10.1	10.4	10.2	10.4	10.2	11.8	10.8
Gain 82-83	1.5	1.6	2.1	1.6	1.0	1.2	1.8	1.5
Ethnic Mean	6.9	6.6	7.7	7.5	8.2	7.2	9.3	8.2
Math '82	8.7	8.2	8.4	8.3	8.8	8.7	9.4	8.8
Math '83	9.6	9.7	9.8	9.7	9.9	9.7	10.5	10.0
Gain 82-83	.9	1.5	1.4	1.4	1.1	1.0	1.1	1.2
Ethnic Mean	7.1	6.9	7.8	7.5	8.3	7.5	9.1	8.3
Composite '82	8.7	8.5	8.7	8.7	9.0	9.0	10.2	9.2
Composite '83	10.2	9.9	10.2	10.1	10.2	10.3	11.6	10.7
Gain 82-83	1.5	1.4	1.4	1.5	1.2	1.3	1.4	1.5
Ethnic Mean	6.9	6.7	7.5	7.5	8.3	7.3	9.3	8.3
Social Studies '82	7.5	8.6	8.8	8.7	9.0	9.0	10.1	9.1
Social Studies '83	10.9	10.3	10.8	10.6	10.1	11.0	12.2	11.5
Gain 82-83	3.4	1.7	2.0	1.9	1.1	2.0	2.1	2.4
Ethnic Mean	6.4	6.4	8.4	7.1	7.8	6.8	8.9	7.8
Science '82	8.0	8.9	9.8	9.4	10.0	9.5	11.0	9.7
Science '83	10.7	10.2	11.0	10.7	11.2	10.3	12.4	11.2
Gain 82-83	2.7	1.3	1.2	1.3	1.2	.8	1.4	1.5
Ethnic Mean	6.9	6.4	8.8	7.5	8.1	6.9	9.4	8.1
No. of students	3	34	55	92	15	12	8	21

Table 11

ITBS Scores for Math, Science, and Communications
Middle School Students Admitted in 1983-84

Grade 7

	Hispanic	Black	Anglo	Oriental	Total
Vocabulary '83	8.7	7.9	8.6	9.0	8.4
Ethnic Mean'83	5.3	5.4	7.1	5.4	6.1
Reading '83	9.0	8.1	8.9	9.3	8.7
Ethnic Mean'83	5.8	5.7	7.3	6.0	6.4
Language '83	10.1	8.9	9.1	10.0	9.2
Ethnic Mean'83	6.2	6.2	7.6	6.3	6.8
Study '83	9.2	8.4	9.1	10.0	8.9
Ethnic Mean'83	6.1	6.0	7.4	6.5	6.6
Math '83	8.6	8.0	8.6	10.1	8.4
Ethnic Mean'83	6.4	6.0	7.2	7.0	6.6
Composite '83	9.1	8.3	8.9	9.7	8.7
Ethnic Mean'83	6.0	5.9	7.3	6.3	6.5
Social Studies83	8.8	7.6	8.9	8.6	8.4
Ethnic Mean'83	5.6	5.2	7.1	5.9	6.1
Science '83	9.5	8.9	9.6	11.0	9.4
Ethnic Mean'83	5.9	6.0	7.6	6.3	6.1
DCAT Raw score	62	52	61	49	57
DCAT percentile	97	82	88	87	86
No. of students	5	36	65	2	109

Grade 8

	Hispanic	Black	Anglo	Oriental	Total
Vocabulary '83	8.2	8.8	9.0	5.5	8.4
Ethnic Mean'83	6.4	6.4	7.6	6.5	7.2
Reading '83	8.4	8.6	9.9	7.9	8.9
Ethnic Mean'83	6.7	6.5	7.9	6.9	7.3
Language '83	9.1	9.3	10.7	9.8	9.8
Ethnic Mean'83	7.1	6.9	7.5	7.3	7.7
Study '83	8.8	9.2	9.7	9.8	9.2
Ethnic Mean'83	6.9	6.6	7.7	7.2	7.5
Math '83	8.6	9.1	9.3	10.0	9.0
Ethnic Mean'83	7.1	6.9	7.8	7.8	7.5
Composite '83	8.6	9.0	9.7	8.6	9.1
Ethnic Mean'83	6.9	6.7	7.5	7.2	7.5
Social Studies83	8.8	11.8	9.4	7.9	9.3
Ethnic Mean'83	6.4	6.4	8.4	6.9	7.1
Science '83	8.7	13.4	10.4	9.6	10.0
Ethnic Mean'83	6.9	6.4	8.8	7.3	7.5
DCAT Raw score	66	50	64	62	63
DCAT percentile	90	84	93	91	90
No. of students	7	2	6	1	16

Table 12

1983 ITBS scores in grade equivalents for the
College Readiness Academy
Students admitted in 1983-84

Grade 6

	Hispanic	Black	Anglo	Oriental	Total
Vocabulary '83	7.8	7.0	7.8	7.3	7.6
Ethnic Mean '83	4.6	4.6	6.2	4.9	5.3
Reading '83	.8	7.4	7.9	7.8	7.8
Ethnic Mean '83	4.9	5.9	6.2	5.2	5.4
Language'83	8.3	8.3	8.6	8.1	8.3
Ethnic Mean '83	7.8	5.7	6.9	6.2	6.3
Study '83	8.0	7.8	8.1	8.4	8.1
Ethnic Mean	5.4	5.3	6.5	6.0	5.9
Math '83	7.1	7.8	7.7	8.3	7.7
Ethnic Mean '83	5.6	5.4	6.3	6.4	5.8
Composite '83	7.8	7.7	8.0	8.1	7.9
Ethnic Mean '83	5.3	5.2	6.5	5.7	5.8
Social Studies83	7.7	7.7	9.1	8.2	8.1
Ethnic Mean '83	4.9	4.9	6.4	5.6	5.6
Science '83	7.9	7.9	8.7	9.1	8.5
Ethnic Mean '83	4.9	4.9	6.5	5.7	5.6
DCAT Raw score	52	51	59	58	57
DCAT percentile	86	83	89	88	87
No. of students	12	21	72	12	117

Table 13

Elementary School Montessori Student ITBS Scores

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Vocabulary	2.4	3.3	3.4	4.6	6.2
Reading	1.6	3.2	3.5	4.8	6.3
Language	1.9	4.1	4.3	5.4	6.5
Study Skills	-	3.3	3.6	4.8	6.3
Math	1.9	2.9	3.5	4.8	5.9
Composite	2.1	3.3	3.6	4.9	6.3
District Mean '83					
No. of students	19	19	22	10	6

Table 14

MAGNET STUDENT OPINION SURVEY

Put an X in front of the answer of your choice

1. Grade _____ 29% 7th 7% 8th 35% 9th 17% 10th 11% 11th

2. Your school: 35% 1.MATH/SCI/COMM 28% 2.FINANCE 37% 3.ENGINEERING

3. Your race: 7% 1. Mexican-American 49% 2. Black 44% 3. Anglo/other

4. Your sex: 55% 1. Female 45% 2.Male

5. Were you at the same program last year? 39% 1.Yes 61% 2.No

6. How much time do you spend riding the bus to school?	MATH/SCIENCE/COMM.		FINANCE		ENGINEERING	
	No.	%	No.	%	No.	%
1. about 45 minutes to 1 hour	39	13	29	9	27	9
2. about 30 to 45 minutes	28	9	26	8	21	7
3. about 15 to 30 minutes	19	6	22	7	25	8
4. less than 15 minutes or not at all	26	8	13	4	35	11
7. How challenging is the magnet program in relationship to the program you were in last year?						
1. much more challenging	77	24	68	21	86	27
2. about the same	28	9	19	6	32	10
3. much less challenging	8	3	1	.3	2	.6
8. In general, how much are teachers interested in your academic progress?						
1. very much interested	57	18	33	10	57	18
2. somewhat interested	49	15	52	16	58	18
3. they don't care	9	3	4	1	5	2
9. How difficult is homework?						
1. too difficult	19	6	34	10	38	12
2. about average	95	29	57	17	80	25
3. too easy	2	.6	0	0	2	.6
10. The amount of homework assigned is						
1. too much	52	16	60	18	76	23
2. about right	59	18	32	10	42	13
3. too little	5	2	0	0	1	.3

MAGNET STUDENT OPINION SURVEY

(continued)

	MATH/SCIENCE/COMM.		FINANCE		ENGINEERING	
11. In general, homework is	No.	%	No.	%	No.	%
_____1. quite interesting	10	3	11	3	13	4
_____2. somewhat interesting	61	19	38	12	59	18
_____3. pretty boring	44	14	42	13	49	15
12. How much do your magnet teachers expect of you in comparison with previous teachers?						
_____1. much more	91	28	69	21	93	28
_____2. about the same	21	6	20	6	25	8
_____3. much less	3	.9	3	.9	3	.9
13. Do your teachers do a good job in the classroom?						
_____1. better than average	32	10	20	6	31	10
_____2. about average	74	23	63	19	83	26
_____3. worse than average	8	3	8	3	5	2
14. How has your attitude changed since the beginning of the school year?						
_____1. become more positive	51	16	30	9	34	10
_____2. remained about the same	45	14	30	9	49	15
_____3. become more negative	18	6	31	10	38	12
15. How do you feel about the program in general?						
_____1. pretty positive	62	19	36	11	53	16
_____2. neutral	41	13	42	13	57	17
_____3. rather negative	14	4	14	4	11	3
16. Do yout teachers answer your questions?						
_____1. always	22	7	17	5	32	10
_____2. sometimes	73	23	60	19	62	19
_____3. not often enough	20	6	14	4	24	7
17. How comfortable do you feel among the non-magnet students of your school?						
_____1. very comfortable	44	14	31	10	49	15
_____2. rather comfortable	52	16	42	13	57	17
_____3. not very comfortable	18	6	19	6	15	5

MAGNET STUDENT OPINION SURVEY

(continued)

	MATH/SCIENCE/COMM		FINANCE		ENGINEERING	
	No.	%	No.	%	No.	%
18. How much do you participate in the extra-curricular activities of the school?						
_____1. a lot	35	11	27	8	51	16
_____2. a little	60	18	48	15	46	14
_____3. don't participate	21	6	17	5	21	6
19. Where did you form your closest friendships this year?						
_____1. in class	83	26	56	17	67	21
_____2. in extra-curricular activities	7	2	5	2	19	6
_____3. on the bus	3	.9	5	2	8	3
_____4. away from school	16	5	16	5	16	5
_____5. no close friendships formed this year	4	1	7	2	9	3
20. Have you been involved in conflicts regarding inter-racial issues in the magnet school?						
_____1. yes, more than once	37	11	15	5	8	3
_____2. yes, once	32	10	13	4	11	3
_____3. no	47	15	62	19	99	31
21. How much help and support do you get from your co-ordinator?						
_____1. a lot	53	17	22	7	24	8
_____2. some	36	11	35	11	59	18
_____3. almost none	26	8	34	11	32	10
22. How much help and support do you get from the magnet counselor?						
_____1. a lot	43	13	46	14	69	22
_____2. some	42	13	34	11	37	12
_____3. almost none	27	8	11	3	12	4
23. How often do you visit your assigned advisor?						
_____1. about once a week	18	6	30	9	38	12
_____2. about every other week	20	6	16	5	32	10
_____3. hardly at all	75	23	45	14	48	15
24. How much support do you get from your own advisor?						
_____1. a lot	27	9	37	12	51	16
_____2. some	40	13	30	10	39	12
_____3. almost none	43	14	22	7	28	9

ADMINISTRATIVE SUMMARY

MAGNET PROGRAM 1983-84:
STATUS AND EVALUATION

February, 1984

OWNER'S CODES:	375 through 380	COST PER PUPIL:	$2405
COST OF PROGRAM:	$1,960,109	FUNDING SOURCE:	Local
NUMBER OF PUPILS:	815	SCHOOLS:	#10 Daggett
STAFF:	50 Teachers		#134 William James
	3 Counselors		#168 Dunbar
	5 Coordinators		#263 Poly
			#274 Dunbar

PURPOSE: The magnet program was developed to provide high quality specialized instruction and to promote voluntary integration. In 1983-84 the program is in its third year of implementation.

DESCRIPTION: The program is currently implemented in two high schools, two middle schools, and an elementary school. Program locations include Dunbar High School for Engineering Professions, grades 9-12; High School for Finance Professions at Polytechnic High School, grades 9-12; Magnet School for Math, Science and Communications at Dunbar Middle School, grades 7-8; College Preparatory Academy at William James, grade 6; and a Montessori Program at Daggett Elementary School, grades K-5.

RESEARCH FINDINGS: Numbers and quality of magnet students increase each year. Students scored 2-3.9 years above district norms, and showed 1.5-2.5 months gain per month of instruction. Black students, whose numbers rise each year, scored lower and showed slightly smaller gains than White students, but scored 3-4.6 years above district Black norms. Hispanic participation in the magnet programs has been relatively light. Overall, ethnic enrollments in the magnet program include 6% Asian, 50% Black, 9% Hispanic, and 35% White.

CONCLUSIONS: Findings point toward the effectiveness of the magnet program both as an environment of enhanced academic achievement and as a means of ethnic integration for the schools involved.

RECOMMENDATIONS:
1) Efforts should be further extended to tutor lower scoring magnet students in order to promote their achievement.
2) Higher percentages of minority students should be recruited to the College Readiness Academy and the Daggett Montessori Program.

Program Manager: Dennis Dunkins
Data Analyst: Helen Abadzi
Date: January 30, 1984